

REMARKS

It is incorrect for the Examiner to say that Widegren teaches negotiating parameters during connection handover of a mobile station between radio network systems. Although Widegren mentions diversity handoff for instance at column 5, line 61, it is only in connection with a general description of some of the features provided by the UMTS of Fig. 1. Widegren only briefly alludes even to the fact that the RNCs 26 of Fig. 1 are even connected (see column 5, line 53). Although Widegren mentions mapping errors to channels according to various service or traffic parameters, Widegren does not discuss what happens during handover much less what happens with regard to parameters during such a handover. As explained in the Background of the Invention section, the prior art has parameters renegotiated during the handover from one RNC to another.

The present invention takes the approach of avoiding this renegotiation by transmitting these parameters from a source radio network subsystem to a target radio network subsystem directly or via the core network without any need for renegotiating the parameters over an air interface between the mobile station and the target radio network subsystem.

The abstract of Widegren discusses flexible and efficient allocation of resources, as does the rest of the Widegren disclosure. What is done in Widegren is to allocate channels to either a dedicated channel or a common channel depending on a traffic parameter. It doesn't have anything to do with the issue of how to handle negotiation of parameters during handover.

The mention of diversity handoff in column 7 at line 13 and at lines 18-40 (particularly at line 37) are just discussing general architectural principles of UTRAN and how the RNC coordinates multiple radio access bearers to a mobile terminal including mapping multiple radio access bearers onto a single radio channel. Although it discusses the RNC supervising diversity handoff, it does not say anything about how this is done or how it may relate to parameters since it is more concerned with the fact that the mapping can be done to either a dedicated channel or a common channel and how this can be controlled by reference to a traffic parameter. It just mentions in passing that the RNC further handles other radio related aspects of a radio connection like the mobility of a radio connection, e.g., handover and control signalling between the mobile station cell and core networks, as well as monitoring the availability of radio resources, cell interference, and congestion levels. Widegren et al do not mention negotiating parameters during connection handover between radio network subsystems.

At column 12, lines 20-22, Widegren is not talking about negotiating parameters during connection handover but rather the balancing and optimization of a number of parameters in order to attempt to map the radio access bearers on to specific radio channels. In other words, the phrase "optimize a number of parameters" is not related to negotiating parameters of an optimization algorithm during handover.

Therefore, Widegren et al does not teach negotiating parameters during connection handover of a mobile station between radio network subsystems.

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Agin (U.S. 6,337,989) is cited for teaching parameters of an optimization algorithm. Agin teaches a modification to the known power control algorithm as shown in Fig. 1 of Agin as improved by another application of Agin as shown in Fig. 2 and as further improved by the modification to the algorithm as shown in Fig. 3 of Agin. Essentially what Agin addresses is keeping the power control step size command to a higher level at the beginning of resumption of an interruption for a period that is not fixed but is subject to change such as shown in Figs. 4-6, depending on whether a condition "C" is verified in a step 23 in Fig. 3. C is a Boolean true or false that enables adaptation of the recovery period as a function of environment, speed, ...or any other factor. For example, the condition C can be that the current and previous power control commands are opposed. It can also be that a current and previous power control command are opposed and that these commands are reliable. See column 7, lines 41-49.

It is therefore evident that Agin only teaches changing the power control step size command sent to the mobile station from the base station after an interruption. It has nothing to do with negotiating parameters of the power control algorithm, much less during connection handover. In fact, Agin does not seem to have anything to do with handover whatsoever. It also does not have anything to do with negotiating parameters.

Regarding claim 1, Agin only teaches parameters and does not even use the word optimization although the Examiner seems to be characterizing the power control algorithm as an "optimization" algorithm. Even if the power control algorithm of Agin were viewed as an optimization algorithm, the context is completely wrong because it does not involve negotiating

parameters of such a power control algorithm. Nor does it have anything to do with negotiating of such parameters during connection handover. It is just a command mechanism for controlling the power control step size after a transmission interruption.

The Examiner states that it would have been obvious to make the Widegren disclosure adapt to include parameters of an optimization algorithm during a connection handover because this would allow for flexibly providing a wide variety of mobile communications services and efficiently allocating resources to support those services.

However, as has been pointed out above, Widegren does not have anything to do with negotiating parameters of an algorithm during connection handover and Agin does not teach this either. So the power control ("optimization") algorithm "adaptation" proposed by the Examiner would still not result in the thing that is claimed in the present invention, i.e., negotiating parameters of any kind of algorithm during connection handover.

Withdrawal of the 35 U.S.C. § 103(a) rejection of claim 1 is requested.

Regarding claim 2, the passage cited at column 10, line 64 through column 11, line 12 refers to the selection of "one" of a predetermined number of different PDU/frame sizes available according to the frame size parameter. It does not mean optional sets of parameters, only one of which is accepted by the source radio network subsystem. It means the selection of a frame size within a frame size parameter.

The passage cited at column 9, lines 25-28 refers to the radio access bearer establishment of Fig. 4 where if no dedicated channel exists, a common channel resource is allocated. The bearer service request is accompanied by quality of service parameters but the cited disclosure of Widegren does not discuss the inclusion of various optional sets of parameters, only one of which is accepted and further, does not show storing one of the optional sets for transmission during the step of transmitting in claim 1.

The passage cited in column 10, lines 64-67 and column 12, lines 12-23, does not mean that the parameters themselves are being selected, but rather that the UTRAN is using those parameters to flexibly balance and attempting to optimize according to those parameters in order to properly utilize the radio resource. Again, it does not have anything to do with handover or optional sets of parameters, only one of which is accepted and likewise nothing to do with storing all of the optional sets of parameters for transmission during the step of transmitting of claim 1.

Withdrawal of the 35 U.S.C. § 103 rejection of claim 2 is requested.

Regarding the rejection of claim 3, it should be noted that claim 3 closely parallels claim 1, already discussed above. Therefore, all of the remarks made above in connection with claim 1 pertain here also. In particular, Widegren does not show or even suggest, even when viewed in light of Agin, anything whatsoever to do with signalling that a handover is required and that once the target RNC or core network signals the source RNC to proceed, the parameters are transmitted directly to the

target radio network controller or via the core network without any need for renegotiating the parameters over the air interface. The passage cited beginning at column 5, line 63 and continuing over to column 6, line 21 has only to do with the general architectural principles of UMTS including the use of channel parameters that accompany the radio access bearer request to assist in the mapping of radio access bearers onto physical transport channels. The examples of parameters given are simply examples of parameters and it does not say anything about the subject of the present invention which involves handover and transmitting parameters between radio network controllers directly or via the core network without any need for renegotiation.

Withdrawal of the 35 U.S.C. § 103 rejection of claim 3 is requested.

Regarding claim 4, it has already been discussed above in connection with claim 2 why Widegren does not teach various optional sets of parameters, only one of which is accepted. Widegren also does not teach storing the various optional sets of parameters for transmittal to the target radio network controller.

Withdrawal of the 35 U.S.C. § 103 rejection of claim 4 is requested.

The objections and rejections of the Official Action of April 10, 2003, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-4 to issue is solicited.

Respectfully submitted,



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